ATTACHMENT 23

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Page 1

1   UNITED STATES DISTRICT COURT

2   FOR THE NORTHERN DISTRICT OF CALIFORNIA

3   SAN FRANCISCO DIVISION

4   IN RE: DA VINCI SURGICAL ROBOT   ) Lead Case No.:

      ANTITRUST LITIGATION,   ) 3:21-cv-03825-VC

5   ------------------------------------)

      THIS DOCUMENT RELATES TO:)

6   ALL CASES   )

      ------------------------------------)

7

8   SURGICAL INSTRUMENT SERVICE   )

      COMPANY, INC.,   ) Case No.

9   ) 3:21-cv-03496-VC

                      Plaintiff,   )

10   )

          vs.   )

11   )

      INTUITIVE SURGICAL, INC.,   )

12   )

                      Defendant.   )

13   ------------------------------------)

14

15   ***HIGHLY CONFIDENTIAL - ATTORNEYS EYES ONLY***

16

17   REMOTE PROCEEDINGS OF THE VIDEOTAPED DEPOSITION OF

18   INTUTITIVE SURGICAL, INC.,

19   BY AND THROUGH ITS 30(B)(6) DESIGNEE,

20   GRANT DUQUE

21   TUESDAY, NOVEMBER 8, 2022

22

23   REPORTED BY NANCY J. MARTIN

24   CSR. NO. 9504, RMR, RPR

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16

17   - - -

18   Tuesday, November 8, 2022

19   - - -

20   Videotaped Remote Deposition of INTUTITIVE

21   SURGICAL, INC., by and through its 30(B)(6) designee

22   GRANT DUQUE, beginning at 3:15 p.m., before Nancy J.

23   Martin, a Registered Merit Reporter, Certified

24   Shorthand Reporter. All parties appeared remotely.

25

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1   A P P E A R A N C E S :

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17

18   ALSO PRESENT:
19   BEN PELTA-HELLER, LEGAL VIDEOGRAPHER
20
21
22
23
24
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1   we're looking at on slide 19.

2   Do you see those?

3   A. Sorry. Can --

4   Q. Sure. On slide 19, are there four other

5   input discs in addition to the end-of-life indicator

6   input disc?

7   A. Yes, that's correct.

8   Q. And those are the input discs that engage via

9   a sterile adapter with a robot arm?

10   A. That's correct.

11   Q. And does the -- does the system or robot,

12   does it measure aspects of the -- what the motor is

13   doing when it's interacting with an input disc?

14   A. It controls the amount. So the system

15   controls the amount of torque that's being applied at

16   each input disc.

17   Q. Do you know if the system, for example, keeps

18   track of the amount of torque that it's applying to

19   the disc?

20   A. There's -- yeah. There's a record of how

21   much torque is being applied at each disc.

22   Q. So what sort of parameters like that are --

23   is a record kept of that interaction between a robot

24   motor and a corresponding disc give an instrument?

25   A. So we are monitoring torque. And really what

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1   we're monitoring is how much current we're applying to

2   the motors, but we translate that to torque, the

3   displacement, so how much each of those input discs is

4   moving.

5   And that's done in concert with one another.

6   So we know at a particular time the torque and the

7   position of each of the discs at a moment in time. So

8   how they're coordinated in time.

9   Q.   And is that information kept in a time series

10   of data?

11   A.   That data is stored on the system logs.

12   Q.   And so if you were to look at a system log,

13   would it be split up by -- per motor?

14   A.   Can you elaborate on that question?

15   Q.   Sure. Yeah. I'm trying to understand the

16   nature of the data that's stored from those

17   measurements that you were talking about, about torque

18   and position.

19   So one question is is the data associated

20   with a particular time as surgery progresses?

21   MS. CAHOY: Objection. Outside of the scope.

22   THE WITNESS: Can you ask the question one

23   more time? I'm sorry.

24   BY MR. VAN HOVEN:

25   Q.   Sure. The -- we discussed the motors that

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1   interface with the input discs of the instruments;

2   correct?

3   A.   Correct.

4   Q.   And that those motors -- essentially there's

5   current applied to them. And they also turn; right?

6   A.   Correct.

7   Q.   And that current can be used to drive torque;

8   right?

9   A.   Correct.

10   Q.   And the amount of turning can be used to

11   drive position?

12   A.   Correct.

13   Q.   And those are data points that are collected

14   during a procedure?

15   A.   That's correct.

16   Q.   And I'm wondering about the nature of those

17   data points that are collected. Are they collected

18   every second or every hundred milliseconds or

19   something like that?

20   MS. CAHOY: Objection to form. Outside the

21   scope.

22   THE WITNESS: I don't know the exact sampling

23   rate.

24   BY MR. VAN HOVEN:

25   Q.   But there is a sampling rate?

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1   A.   Correct.

2   Q.   And then samples are stored?

3   A.   The data is stored on the system locally, but

4   there's a certain buffer. So if it's not downloaded,

5   then it will get overwritten.

6   Q.   And in your role as -- in the design

7   engineering and product engineering roles at

8   Intuitive, do people ever look at that sample data

9   from the motors for any purposes?

10   A.   Yes, we do.

11   Q.   What are some of those purposes?

12   A.   For failure analysis. So if we have an

13   RMA -- we talked about RMAs earlier -- and we're

14   trying to determine how an instrument failed or were

15   trying to replicate the point of failure, we might

16   access the GSP logs to see what position or what

17   torques are being applied to our best guess as what we

18   believe to be the point of failure to try to

19   replicate.

20   We might also access DSP logs to understand

21   the history of an instrument for FA purposes as well.

22   Q.   What do you mean by "for FA purposes"?

23   A.   For failure analysis. If we had -- if we had

24   an instrument that we were -- again, to try to

25   replicate the failure, not only to replicate the

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1   failure but to replicate the history of the instrument

2   to understand, you know, how many times it was used at

3   a certain torque level, how much it spent its time at

4   the extremes of its range of motion, if there are any

5   outliers, just to try to characterize the history of a

6   device.

7   Q. Right. Because all of that information is

8   useful for determining how a failure happened; right?

9   MS. CAHOY: Objection to form.

10   BY MR. VAN HOVEN:

11   Q. I'm sorry. What was your answer?

12   A. It helps paint the picture to help do root

13   cause analysis. We try to understand as much as we

14   can.

15   Q. Is that data -- that data is stored at the

16   system with the XI; is that right?

17   A. So as I'm aware, it's stored locally on the

18   system and if it's not downloaded, it will get

19   overwritten because there's a certain memory buffer or

20   memory threshold that it can store.

21   Q. Do you have an understanding about how long

22   that period is at which it will get overwritten?

23   MS. CAHOY: Objection to form.

24   THE WITNESS: I don't know exactly.

25   BY MR. VAN HOVEN:

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1   Q.   Are there DSP logs with SI systems and

2   instruments?

3   MS. CAHOY: Objection to form. Outside the

4   scope.

5   THE WITNESS: I don't know offhand.

6   BY MR. VAN HOVEN:

7   Q.   Is the -- to your knowledge, is the torque --

8   sorry. Let's go back to the SI for a moment. Is a --

9   are current imposition of motors that interface with

10   SI instruments measured by the SI system?

11   A.   The amount of torque and the displacement

12   values are controlled by the system. So that

13   information is available, yes.

14   Q.   I understand it's controlled by the system.

15   Is it also stored?

16   MS. CAHOY: Objection to form. Outside the

17   scope.

18   THE WITNESS: Again, there's a buffer. So

19   similar to what I understand on XI is that it is

20   stored locally and if it's not downloaded or saved,

21   then it would be overwritten and it would be lost. So

22   it's available but if not stored off the system, or it

23   will be erased.

24   BY MR. VAN HOVEN:

25   Q.   Is the torque imposition data that's stored

Page 19

1   with the XI system used to control the end-of-life

2   indicator in any manner?

3   MS. CAHOY: Objection to form.

4   THE WITNESS: Not that I'm aware.

5   BY MR. VAN HOVEN:

6   Q. Is the torque imposition data that's stored

7   within an SI system used to control the counter of

8   those instruments in any manner?

9   MS. CAHOY: Objection to form.

10   THE WITNESS: Not that I'm aware.

11   BY MR. VAN HOVEN:

12   Q. I'm going to move to slide 24, and I believe

13   I'm also displaying it.

14   Let me know when you're ready to discuss that

15   slide.

16   (The witness reviewed the document.)

17   THE WITNESS: Yes, I see it. RFID and

18   Dallas.

19   BY MR. VAN HOVEN:

20   Q. Is it your understanding that Dallas is a

21   chip that was used in SI instruments?

22   A. Yes.

23   Q. That's the chip that included the use counter

24   within SI instruments?

25   A. Can you restate the question?